

In The Claims

Applicant submits below a complete listing of the current claims, with any insertions indicated by underlining and any deletions indicated by strikeouts and/or double bracketing.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1. (Currently amended) A method for transmitting digital messages through output terminals (22) of a monitoring circuit (18) integrated ~~to~~ with a microprocessor (12), the digital message messages being representative of first specific events depending on the execution of an instruction sequence by the microprocessor, ~~characterized in that it comprises the steps of comprising:~~

[[-]] transmitting to the monitoring circuit through dedicated accesses a request signal (Req) for the sending of a message associated with a specific event from among second specific events independent from the execution of the instruction sequence by the microprocessor and a signal of characteristic data (DATA) associated with said specific event;

[[-]] having the monitoring circuit read said request message and, if resource management conditions are fulfilled, transmitting through a dedicated access an acknowledgement message (Ack) and storing said characteristic data signal; and

[[-]] transmitting a digital message representative of the stored characteristic data signal.

2. (Currently amended) The method of claim 1, in which the resource management conditions are fulfilled when the monitoring circuit (18) is not transmitting messages representative of the first specific events.

3. (Currently amended) The method of claim 1, in which the digital message representative of the stored data signal comprises an identifier and the characteristic data signal (DATA).

4. (Currently amended) The method of claim 1, in which the characteristic data (DATA) signal corresponds to the values on input terminals (16) of the microprocessor (12).

5. (Currently amended) A device for transmitting digital messages between a monitoring circuit (18) integrated to with a microprocessor (12) and an analysis tool (24), first digital messages being representative of first specific events depending on the execution of an instruction sequence by the microprocessor, ~~characteristic data signal comprising:~~

means (26) for detecting a specific event from among second specific events independent from the execution of the instruction sequence by the microprocessor;

means (26, 34) for transmitting a request for transmitting to the monitoring circuit, when a specific event is detected, a request signal (Req) and a characteristic data signal (DATA) associated with said specific event

~~and in that wherein~~ the monitoring circuit comprises means for storing the characteristic data signal provided by the request transmission means, means for transmitting to the request transmission means an acknowledgement signal (Ack) when the characteristic data signal is stored, and means for transmitting a digital message from said stored characteristic data signal.

6. (Currently amended) The device of claim 5, in which the detection means (26), the request transmission means (26, 34), the monitoring circuit (18), and the microprocessor (12) are integrated in a same chip (10).

7. (Currently amended) The device of claim 5, in which the detection means (26) is connected to input terminals (16) of the microprocessor (12).